

Question One (10 Marks)

A- What are the characteristics of pervasive computing? (4 marks)

- * containing a group of users instead of one user.
- * there are many lists, icons and application which are improved and different.
- * involving 3D-sounds - animation
- * the meaning of pervasive computing is existing everywhere.

B- What are the features of digital pens? (3 marks)

- * can access immediately in the computer to input data.
- * much easier than using keyboards and faster.
- * provided new type of technology
- * appear in the 1990s.

C- Give three different input devices that the user can use to interact with the computer? (3 marks)

- * keyboard "input data or words or informations"
- * digital camera "input picture"
- * scanner
- * joystick
- * mouse "user can interact with the computer"

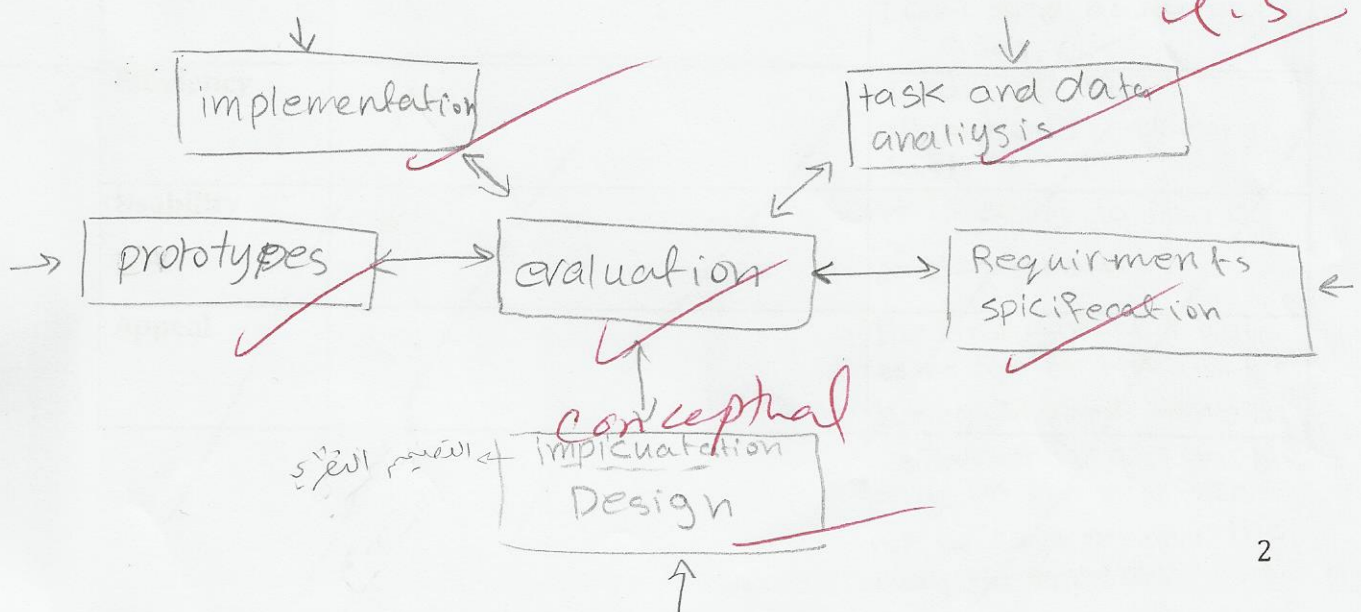
Question Two (10 marks)

A- What are the steps that user-centered process model follow?(4 marks)

- * needs analysis ✓
- * User and task analysis ✓
- * usability engineering ✓ Spec.
- * Design ✓
- * prototypes ✓
- * evaluation ✓

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B- Draw a sketch for Star lifecycle model then list its Important features. (6 marks)



Important Features

- Evaluation is at the center of activities.
- Interconnected via the evaluation activity.
- No particular ordering of activities. Development may start in any one of the activities
- Derived from empirical studies of interface designers.

Question Three (9 marks)

A- Blackboard is used as an e-learning management system at University of Bahrain. As a user do you think this system achieved the goals of HCI? Fill three goals in the following table with suitable answers. (6 marks)

HCI Goals	Achieved? (Yes/No)	Example
Safety	No	when I click on submit it does not ask me if I am sure if I want to submit, so some times I forget to include my file.
Utility	Yes	it has many fancual icons like contact, information, Contact, grades.... ect.
Effectiveness	Yes	I can get the information I need and achine my goal.
Efficiency	Yes	I can get the information I need very fast
Usability	Yes	it is easy to learn & easy to use.
Appeal	No	The first impact I get on the system was little bit boring. It have many

Details, my impact was bad only on the interface not the functions and the way the system behave.

B- What are the stakeholders for the library system at your University? Give three examples (3 marks)

- * the Student ^{name of the} ~~name~~ and ID and ~~the~~ book he want 0.5
- * The name of the employee who will ~~help~~ the student.
- * The system should save all ~~Details~~ about this process with the Date
- * give a list on instruction for the student.

Question Four (11 Marks)

A- Flexibility is a principle that support usability. What does it mean? list four more principles. (6 marks)

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Flexibility it's mean that the system should help the user in many areas and to have many function to do many things to provide all user needs.

* Safty ~~✓~~ * memberelity

* Combability ~~✓~~ * inrasibal Technology.

* control * easability. * WYSIWYG

B- What is the HCI Scope? (5 marks)

- 0.5
- * Tasks and data analysis
 - * Evaluation
 - * intereriu
 - * Questionere
 - * group intereriu
 - * prototyping
 - * Requirements spicification